

PATENT ABSTRACTS OF JAPAN

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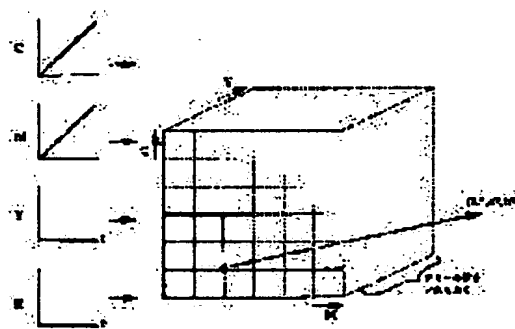
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(54) METHOD FOR FORMING SPECIAL COLOR PRINTING PROFILE, AND APPARATUS FOR FORMING PROOF SHEET OF SPECIAL COLOR PRINTING DOCUMENT

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an apparatus which forms a proof sheet by a color printer thereby checking a color tone of a special color print with the use of a process form system and a color management system.

SOLUTION: The method for forming a special color printing profile to be used in converting colors by a color management system includes a process in which a color chart obtained by a combination of colors used in the special color printing among four colors, namely, cyan, magenta, yellow and black is output, a process in which a combination of an L* value, an a* value and a b* value representing each color of the color chart in a standard color space is measured for each color, a process in which a look-up table showing a correspondence of a combination of values of the cyan, magenta, yellow and black constituting each color and the combination of the L*value, a*value and b*value of each color is formed for each color of the color chart, and a process in which the look-up table is converted to a binary look-up table conforming to a form of the profile.

**LEGAL STATUS**

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 of rejection]

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- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1] The creation method of the profile for the special-feature printing used for the color conversion by the color management system characterized by providing the following The process which outputs the color chart obtained with the combination of the version used by the special-feature printing among cyanogen, a Magenta, yellow, and the 4 color versions of black The process which measures the combination of L* value which is a value which shows each color in a standard color space about each color of the aforementioned color chart, a* value, and b* value The cyanogen which constitutes each color version about each color of the aforementioned color chart, a Magenta, yellow, and combination of the value of black The process which creates the look-up table showing correspondence with the combination of the aforementioned L* value of each color, a* value, and b* value, and the process which changes the aforementioned look-up table into the look-up table of binary form according to the form of a profile

[Claim 2] The process which creates the aforementioned look-up table The aforementioned cyanogen, a Magenta, yellow, and the 1-dimensional look-up table about each color of black, The aforementioned cyanogen, a Magenta, yellow, and the combination and the aforementioned L* value of four colors of black, The method according to claim 1 of setting to 0 all the values in the aforementioned 1-dimensional look-up table about colors other than the color which creates a three-dimension look-up table from four dimensions, and is used by the special-feature printing among the four aforementioned color which show correspondence with the combination of a* value and b* value.

[Claim 3] The process which creates the aforementioned look-up table The aforementioned cyanogen, a Magenta, yellow, and the combination and the aforementioned L* value of four colors of black, Create a three-dimension look-up table from four dimensions which show correspondence with the combination of a* value and b* value, and it sets [aforementioned] from four dimensions to a three-dimension look-up table. The method according to claim 1 of making the same a correspondence relation with the combination of the combination of the color used by the special-feature printing, the aforementioned L* value, a* value, and b* value to all the values of colors other than the color used by the special-feature printing among the four aforementioned color.

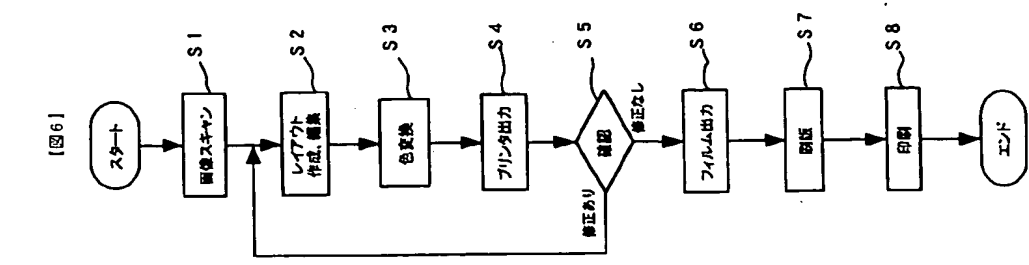
[Claim 4] The proof listing device of the special-feature printing manuscript equipped with a means to use the profile for the special-feature printing, and the profile for output printers, and to change color data into an output printer color from the target special-feature printing color by color management processing, and a means to create the proof of the aforementioned printed matter by printing the color data obtained by the aforementioned conversion means using the aforementioned color-data print equipment.

[Translation done.]

プロセス印刷用のDTPシステムを使用することが普通である。この際、DTPシステムのモニタ上の画面表示では4色画像の表示がなされる。この場合、プロセス印刷用に3色色には色に分解された画像のうち1色を欠くこと、その色を含む4色の複写が再現されにくくなるが、前述のように画面表示は4色のままなので、特色印刷したときにどのような色で再現されるのか推測するのは非常に困難である。そのため、特色印刷においても、プロセス印刷の時に四原色に、本機での印刷を行う前に校正色を作成し、画像の再現の確認を行うことが一般的である。

(4)

【0027】次に、上記のような形式の印刷型デバイスのプロファイルと、CMSでの色変換に使用する方法を



【図4】

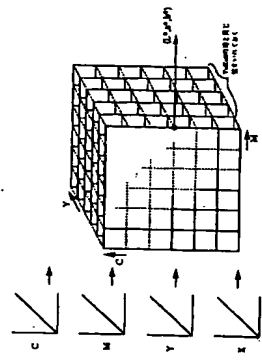
カラープロファイルの作成

ソフトウェアドット

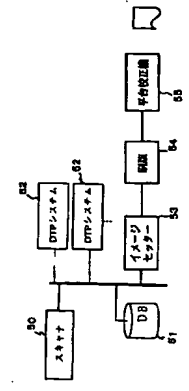
CMYK	L*	a*	b*	2007年10月 形式に一致
0	39.12	13.24	3.44	0.0
10	38.12	13.24	3.44	0.0
20	37.12	13.24	3.44	0.0
30	36.12	13.24	3.44	0.0
40	35.12	13.24	3.44	0.0
50	34.12	13.24	3.44	0.0
60	33.12	13.24	3.44	0.0
70	32.12	13.24	3.44	0.0
80	31.12	13.24	3.44	0.0
90	30.12	13.24	3.44	0.0
100	29.12	13.24	3.44	0.0
110	28.12	13.24	3.44	0.0
120	27.12	13.24	3.44	0.0
130	26.12	13.24	3.44	0.0
140	25.12	13.24	3.44	0.0
150	24.12	13.24	3.44	0.0
160	23.12	13.24	3.44	0.0
170	22.12	13.24	3.44	0.0
180	21.12	13.24	3.44	0.0
190	20.12	13.24	3.44	0.0
200	19.12	13.24	3.44	0.0
210	18.12	13.24	3.44	0.0
220	17.12	13.24	3.44	0.0
230	16.12	13.24	3.44	0.0
240	15.12	13.24	3.44	0.0
250	14.12	13.24	3.44	0.0
260	13.12	13.24	3.44	0.0
270	12.12	13.24	3.44	0.0
280	11.12	13.24	3.44	0.0
290	10.12	13.24	3.44	0.0
300	9.12	13.24	3.44	0.0

チャート出力

【図8】



【図9】



ジメット機能を利用することにより、カラープリンタなど、特色印刷の校正印刷を作成することができる。

【0050】請求項2に記載の発明によれば、特色印刷で使用する色以外の色については、4次元から3次元へのムックアップテンプレートの値が参照されなくなるので、形式上は4色であるが内容的に特色印刷用のプロファイルを作成することができる。

【0051】請求項3に記載の発明によれば、特色印刷で使用する色以外の色の値に拘わらず、特色印刷で使用する色の組み合わせと標準的な空間におけるL値、a*値、及びb*値の組み合わせとの対応関係が同一であるので、形式上は4色であるが内容的に特色印刷用のプロファイルを作成することができる。

【0052】請求項4に記載の発明によれば、カラープリンタなどのカラーデータプリント装置を利用して、特色印刷原稿の校正印刷を作成することができ、校正印刷に要するコスト、時間などを軽減することができる。

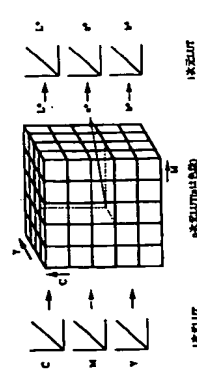
【面の構成な説明】

【図1】カラーマネージメントシステムで使用するプロファイルの形式を模式的に示す図である。

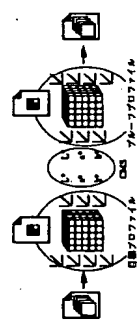
【図2】カラーマネージメントシステムにおける処理の概要を示す図である。

【図3】本発明による2色印刷用プロファイルの構成を模式的に示す図である。

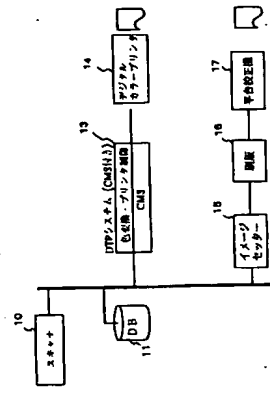
【図1】



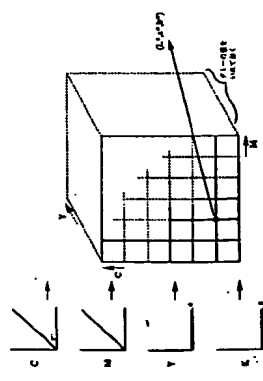
【図2】

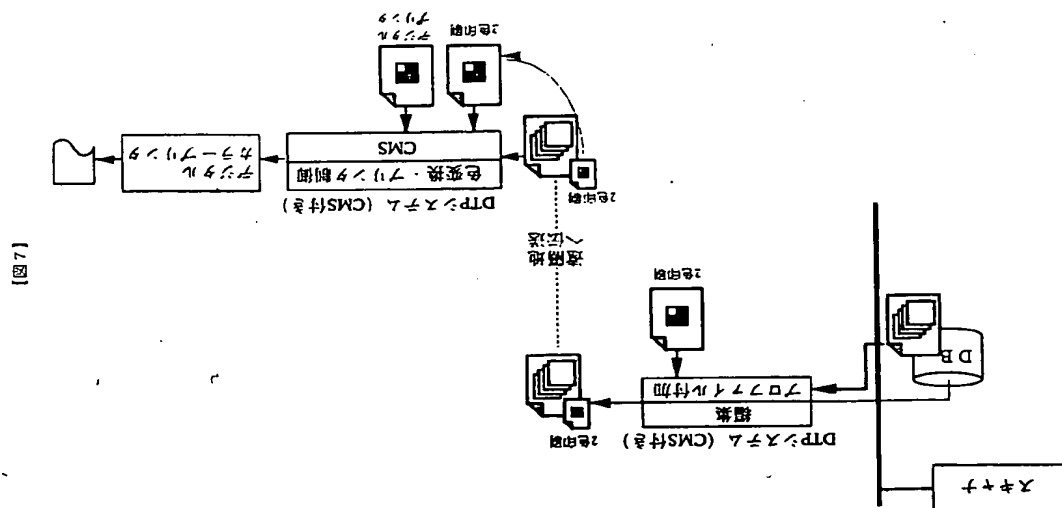


【図5】

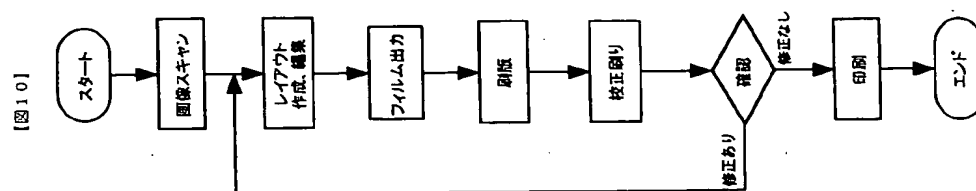


【図3】





【2圖】



【010】